

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference H.S.A.D. 350	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 00/ 08612	International filing date (day/month/year) 01/09/2000	(Earliest) Priority Date (day/month/year) 10/09/1999
Applicant HOLLANDSE SIGNAALAPPARATEN B.V.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☒ because this figure better characterizes the invention.

1, 3A

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP 00/08612

Box III- TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The abstract is modified as follows:

line 1: after "object" insert "(6)";
line 2: after "object" insert "(1)";
line 3: after "balls" insert "(2a, 2b, 3a, 3b, 4a, 4b)";
line 5: after "three steel balls" insert "(7, 8, 9)".

REC'D 17 DEC 2001

WIPO

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10



Applicant's or agent's file reference H.S.A.D. 350		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/08612	International filing date (day/month/year) 01/09/2000	Priority date (day/month/year) 10/09/1999	
International Patent Classification (IPC) or national classification and IPC F16M13/00			
Applicant THALES NEDERLAND B.V.			

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

- This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07/04/2001	Date of completion of this report 13.12.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Rochus, J Telephone No. +49 89 2399 8913 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/08612

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-6 as originally filed

Claims, No.:

1-10 as originally filed

Drawings, sheets:

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP00/08612

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-8,10
	No:	Claims	9
Inventive step (IS)	Yes:	Claims	1-8,10
	No:	Claims	9
Industrial applicability (IA)	Yes:	Claims	1-10
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

R V.:

1. Claim 1 discloses an assembly comprising a first and a second object and means for the defined support of these objects, whereby these means include three individual protrusions with at least virtually sphere-segment shaped extremities on the first object, such as known from US-A- 4290 574, and three pairs of protrusions provided also with at least virtually sphere-segment shaped extremities on the second object, whereby in an operational condition each individual protrusion contacts a corresponding pair of protrusions.

This allows to determine the direction of the first object relative to the second object in a very simple manner.

This is novel and industrial applicable and contains an inventive step as none of the cited documents gives a suggestion to solve the inherent problem.

2. The dependent claims 2 to 8 include advantageous embodiments of the assembly according to claim 1 and thus also fulfil the requirements raised.
3. In US-A-4 290 574, there is disclosed an object 26 provided with individual protrusions 32, 34, 36 suitable for application in an assembly comprising this and a second object and means for the defined support of these objects (column 3, line 28 - column 4, line 16; Fig. 5).

The subject-matter of claim 9 does not differ from that of above. Claim 9 therefore does not comply with Art. 33(2) PCT.

4. Independent claim 10 describes a method of how to produce such objects, namely by making three holes in the first object and a fitting three metal balls or objects with a ball-shaped extremity therein, whereby these three balls or extremities define a first triangle such as known from EP-A-51 574, and making three pairs of holes in the second object, fitting metal balls or objects with a ball-shaped extremity therein and placing the three balls or extremities of the first object on the three pairs of balls or extremities of the second object.

This is novel and industrial applicable and contains an inventive step as none of the cited documents gives a suggestion to solve the inherent problem.

Re VII.:

2. Claim 1 is not correctly delimited against the nearest prior art, US-A-4 290 574, which discloses all features of the preamble of claim 1 and additionally that the individual protrusions are provided with at least virtually sphere-segment shaped extremities (Rule 6.3(b) PCT).
3. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
4. As the second triangle is defined in claim 2, the reference in claim 3 should be to claim 2 instead of claim 1.
5. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document US-A-4 290 574 is not mentioned in the description, nor is this document identified therein. Also EP-A-51 574 which discloses the features of the preamble of method claim 10 is neither mentioned nor identified in the description.

PATENT COOPERATION TREATY

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From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

THALES NEDERLAND B.V.
Patent Dept.
P.O. Box 42
NL-7550 GD Hengelo
PAYS-BAS

Date of mailing (day/month/year) 23 July 2001 (23.07.01)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference H.S.A.D. 350	
International application No. PCT/EP00/08612	International filing date (day/month/year) 01 September 2000 (01.09.00)

1. The following indications appeared on record concerning:

☒ the applicant

 ☐ the inventor

 ☐ the agent

 ☐ the common representative

Name and Address

 HOLLANDSE SIGNAALAPPARATEN B.V.
 Zuidelijke Havenweg 40
 P.O. Box 42
 NL-7550 GD Hengelo
 Netherlands

State of Nationality

NL

State of Residence

NL

Telephone No.

074 248 2308

Facsimile No.

074 248 4052

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person

 ☒ the name

 ☐ the address

 ☐ the nationality

 ☐ the residence

Name and Address

 THALES NEDERLAND B.V.
 Zuidelijke Havenweg 40
 P.O. Box 42
 NL-7550 GD Hengelo
 Netherlands

State of Nationality

NL

State of Residence

NL

Telephone No.

074 248 2308

Facsimile No.

074 248 4052

Teleprinter No.

3. Further observations, if necessary:

Please note that the address for correspondence has also been changed as indicated in the addressee Box above.

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

 The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

F. Baechler

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 15 May 2001 (15.05.01)	
International application No. PCT/EP00/08612	Applicant's or agent's file reference H.S.A.D. 350
International filing date (day/month/year) 01 September 2000 (01.09.00)	Priority date (day/month/year) 10 September 1999 (10.09.99)
Applicant WAANDERS, Hermanus, Johannes	

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

07 April 2001 (07.04.01)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Athina Nickitas-Etienne Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

From the INTERNATIONAL BUREAU

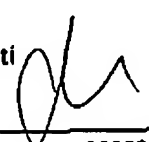
To:

HOLLANDSE SIGNAALAPPARATEN B.V.
Patent Dept.
P.O. Box 42
NL-7550 GD Hengelo
PAYS-BAS

Date of mailing (day/month/year) 07 November 2000 (07.11.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference H.S.A.D. 350	
International application No. PCT/EP00/08612	
International publication date (day/month/year) Not yet published	
International filing date (day/month/year) 01 September 2000 (01.09.00)	Priority date (day/month/year) 10 September 1999 (10.09.99)
Applicant HOLLANDSE SIGNAALAPPARATEN B.V. et al	

1. The applicant is hereby notified of the date of receipt (except where the letters "NR" appear in the right-hand column) by the International Bureau of the priority document(s) relating to the earlier application(s) indicated below. Unless otherwise indicated by an asterisk appearing next to a date of receipt, or by the letters "NR", in the right-hand column, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).
2. This updates and replaces any previously issued notification concerning submission or transmittal of priority documents.
3. An asterisk(*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b). In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.
4. The letters "NR" appearing in the right-hand column denote a priority document which was not received by the International Bureau or which the applicant did not request the receiving Office to prepare and transmit to the International Bureau, as provided by Rule 17.1(a) or (b), respectively. In such a case, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

<u>Priority date</u>	<u>Priority application No.</u>	<u>Country or regional Office or PCT receiving Office</u>	<u>Date of receipt of priority document</u>
10 Sept 1999 (10.09.99)	1013018	NL	20 Octo 2000 (20.10.00)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.36	Authorized officer Catherine Massetti  Telephone No. (41-22) 338.83.38
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WO 01/20220
PCT/EP00/08611**PATENT COOPERATION TREATY****PCT****NOTICE INFORMING THE APPLICANT OF THE
COMMUNICATION OF THE INTERNATIONAL
APPLICATION TO THE DESIGNATED OFFICES**

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

HOLLANDSE SIGNAALAPPARATEN B.V.
Patent Dept.
P.O. Box 42
NL-7550 GD Hengelo
PAYS-BAS

Date of mailing (day/month/year) 22 March 2001 (22.03.01)		IMPORTANT NOTICE	
Applicant's or agent's file reference H.S.A.D. 350			
International application No. PCT/EP00/08612	International filing date (day/month/year) 01 September 2000 (01.09.00)	Priority date (day/month/year) 10 September 1999 (10.09.99)	
Applicant HOLLANDSE SIGNAALAPPARATEN B.V. et al			

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:
AU, KR, US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:
BR, CA, CN, CZ, EP, HU, ID, IL, IN, JP, MX, NO, NZ, PL, RO, RU, SG, TR, UA, ZA

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on
22 March 2001 (22.03.01) under No. WO 01/20220

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. (41-22) 740.14.35	Authorized officer J. Zahra Telephone No. (41-22) 338.83.38
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